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ABSTRACT OF THE DISCLOSURE

A multi-service network switch capable of providing multiple network services from a single platform. The switch incorporates a distributed packet forwarding architecture where each of the various cards is capable of making independent forwarding decisions. The switch further allows for dynamic resource management for dynamically assigning modem and ISDN resources to an incoming call. The switch may also include fault management features to guard against single points of failure within the switch. The switch further allows the partitioning of the switch into multiple virtual routers where each virtual router has its own set of resources and a routing table. Each virtual router is further partitioned into virtual private networks for further controlling access to the network. The switch's supports policy based routing where specific routing paths are selected based a domain name, a telephone number, and the like. The switch also provides tiered access of the Internet by defining quality of access levels to each incoming connection request. The switch may further support an IP routing protocol and architecture in which the layer two protocols are independent of the physical interface they run on. Furthermore, the switch includes a generic forwarding interface software for hiding the details of transmitting and receiving packets over different interface types.

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REMARKS/ARGUMENTS

Claims 1-9 and 12-13 are currently pending in this application. Claims 1, 4, and 6 have been amended. Claims 10 and 11 have been canceled. Claims 12 and 13 have been added. The amendments find full support in the original specification, claims, and drawings. No new matter has been added. In view of the above amendments and remarks that follow, reexamination, reconsideration, and an early indication of allowance of claims 1-9 and 12-13 are respectfully requested.

The Examiner notes that the drawings submitted with this application are informal. Applicant will submit formal drawings upon allowance of the application.

The Examiner objects to the abstract of the disclosure because of a typographical error. The error has been corrected via this amendment, and withdrawal of the objection is respectfully requested.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended the claims to comply with the requirements of 35 U.S.C. 112, second paragraph. Withdrawal of the rejection is respectfully requested.

The Examiner rejects claims 1-11 under 35 U.S.C. 103(a) as allegedly being unpatentable over Diaz (U.S. Patent No. 5,809,021) in view of Volftsun (U.S. Patent No. 6,111893). The Examiner contends that Diaz discloses all of the limitations of claims 1 and 6 except that Diaz does not disclose passing a generic packet to an application, receiving from the application the generic packet,

translating the generic packet into a second protocol, and sending it to an output port. The Examiner relies on Volftsun to make up for this deficiency. In particular, the Examiner contends that Volftsun discloses the use of protocol conversion in network applications which, according to the Examiner, "clearly anticipate the step of passing a generic packet to the application, receiving from the application the generic packet and translating the generic packet into a second protocol and sending it to an output port."

Applicant respectfully disagrees. The Examiner relies on the disclosure on column 3, lines 7-23 as support for his argument. This section of Volftsun recites that "[t]he present invention provides advantages in network applications where it can be used to cost effectively expand a network . . ." This section, however, simply teaches that network applications will benefit from the invention disclosed in Volftsun. This section may not be reasonably constructed as an instruction to pass a generic packet to an application, receive from the application the generic packet, translate the generic packet into a second protocol, and send it to an output port.

To further distinguish the present claims from the systems in Diaz and Volftsun, claims 1 and 6 have been amended to include the limitation of "invoking the application for processing the generic packet by the application transparently of the first protocol." Diaz and Volftsun fail to teach or suggest this limitation. Accordingly, claims 1 and 6 are now in condition for allowance.

Claims 2-5 and 7-9 are also in condition for allowance because they depend on an allowable base claim, and for the additional limitations that they contain.

Claims 10 and 11 have been canceled, and the rejection of these claims are therefore now moot.

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Claims 12 and 13 are new in this application. Claims 12 and 13 are also in condition for allowance because Diaz and Volftsun fail to teach or disclosure "an interface coupled to the drivers and the applications, the interface configured to receive a first packet formatted in a first format from a first driver, translate the first packet to a second format to generate a second packet, and forward the second packet to one of the plurality of applications, the one of the plurality of applications being configured to process the second packet transparently of the first protocol."

In view of the above amendments and remarks, Applicant respectfully submits that claims 1-9 and 12-13 are in condition for allowance, and respectfully requests an early indication of allowance of these claims.

Respectfully submitted,

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